





## **Eco-Calc**

# Smartphone application development

Eco-Calc is a free app for smartphones developed within the frame of the project that offers the opportunity to carry out your own energy check at home. It also gives the opportunity to update the energy savings and share the results with AIET.

The app, developed in Spanish, is available in the Google Play Store in the following link:

https://play.google.com/store/apps/details?id=com.promise.ecocalc&feature=search\_result#?t=W251bGwsMSwyLDEsImNvbS5wcm9taXNILmVjb2NhbGMiXQ



Ilustración 1- Flyer for the promotion of the Eco-Calc app

#### HOW WAS IT DEVELOPED?

The Eco-Calc was developed for Android and launched in the Google Play store, due to the advantages that it offers to developers compared to the Apple App store. These advantages include:

Unique fee for the upload and maintenance of apps (paid when creating the developer account).

The app is directly available for users, not having to pass an evaluation phase as in the Apple Store.

AIET hired the development of the app to the Development department of ITER that designed it following the instructions of AIET and based on the energy checks sheet developed by Samsø. The Eco-Calc has been specifically adapted to the characteristics of Tenerife.







The result was the app Eco-Calc that was developed as a self-energy check, which allows updates in order to include future energy savings. The users of the app can choose to share their saving results with AIET, providing valuable information for the agency.

#### **HOW DOES IT WORK?**

### 1. General information about the application:





La aplicación "Eco-Calc" ha sido desarrollada dentro del marco del proyecto PROMISE, financiado por la Comisión Europea como parte de su Programa de Energía Inteligente.

Esta aplicación se presenta como una herramienta de apoyo para las personas que quieran tener un hogar más sostenible. La aplicación se muestra como un recorrido virtual donde se identifican distintas medidas de ahorro aplicables en cada una de las estancias. Estas medidas están concebidas para no suponer un esfuerzo económico sino más bien un cambio de hábitos.

Durante el recorrido virtual se va respondiendo a unas sencillas preguntas que plantean los cambios antes mencionados, acciones fáciles que uno estaría dispuesto a realizar para conseguir un ahorro de energía.

Toca la pantalla para continuar

The first time the users open the Eco-Calc, they receive a small introduction to the application that has been developed within the frame of the PROMISE project.

This screen also include two logos (PROMISE project and AIET), each of which forward the users to further information and its webpages.

This screen can also be reached by pressing the icon.









## 2. Start of the energy check with the Eco-Calc app:





The following screen allows the users to register a house. The same user can register as many different houses as needed (for example, the user will be able to carry out an energy check in a neighbor's house).

The fields that need to be filled in are:

- Username associated to the house
- Number of people who live in the house
- Square meters of the house
- Tick if the house has a heat pump heating system
- Value of the annual energy consumption
- Price of electricity (Although a price is given by default, the user can also change it if needed).

The users have more information about the fields to be completed when pressing the  ${\it II}$  icon.

All screens have a help menu identified with the icon that provides more information about what has to be done in each case.







## 3. List of registered houses:





This screen shows a list of the houses that have been registered.

Form here the users can:

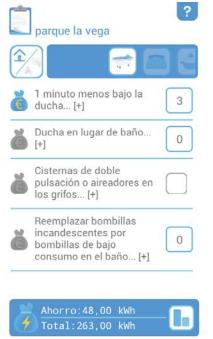
- Add new houses.
- Start/continue the energy check of a registered house.
- Go back to the settings of a registered house (name of the house, number of people, square meter, annual energy consumption, etc.)
- Delete the registered house
- All the above is explained in the help menu.







## 4. Energy check development:



The energy check is organized by rooms, making the process easier for the user (The house has been divided into kitchen, living room, bedroom, bathroom and other spaces). Once they start the energy check, they can move through the different rooms of the house checking for the energy tips they are going to follow.

As the user moves forward through the energy check, they will be able to see their savings in kWh. The savings are shown for each individual room and for the total of the house. The information expressed in Euros is also available in the same way (blue box at the bottom of the screen).

A floating screen opens every time the user places its finger on each energy tip, proving additional information of what it's being asked.



In this case the help menu explains the icons displayed in the screen:

: Allows the user to organize the energy check by rooms or by saving tip category (tips related to electricity or to water).

: Allows the user to move back and forward from one room to the other or form one category to the other.

: Shows the results obtained after the energy check.

: Shows the savings in € and kWh for the selected room/category as well as for the whole house.







#### 5. Results:

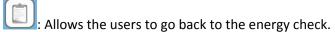


At the end of the energy checks the users receive their results. These results are expressed in a graph that compares the energy consumption before (grey column) and the energy consumption that the user will have in the following year if they follow the energy tips they have committed (blue column). The difference between both columns gives the annual energy savings.

The total annual energy savings in kWh is also shown below the graph. Users get also an additional motivation message to keep up the good work in this screen.



The help menu in this section explains the icons displayed in the screen:



: Allows the users to go back to the list of registered houses.

: Allows the users to share the results of the energy checks with AIET.